18 IMAGE ENHANCEMENT

18.1 INTRODUCTION

Image processing requires a thorough understanding of the principles of photography. Photographic lighting techniques, filtration, film properties and processing chemical/techniques can all be accomplished through digital imaging. The electronic manipulation of the images, once captured, can be done with various types of hardware and software and is termed image enhancement. Currently available software provides many ways to improve contrasts or remove background interference and thereby improve the captured image. An application such Fast Fourier Transformation (FFT) allows the examiner to enhance ridge structure while decreasing background interference. Improvements in image storage and in output or printing devices have increased the utility of imaging for latent fingerprint casework.

The sophistication and the rapid changes seen in the computer industry have made understanding of imaging an arduous task. However, the potential for obtaining results previously unattainable makes this technology an exciting area to be explored. The use of the specific software and hardware available for each imaging system is described in the training/operations manual provided for each system. To be proficient in the use of the imaging equipment available requires the examiner to be familiar with the operations of the hardware and software. To become an expert in its operation requires extensive understanding of the individual system and possible applications though training and experience.

When to request image enhancement is at examiners discretion.

♦End